

REMARKS

Reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1-5 and 7-15 remain pending in this application. No amendments have been made to the claims. For the reasons set forth below, Applicant respectfully submits that all of the claims pending herein are in condition for allowance.

In the Office Action,

- Claims 1, 3-5, 7 and 9-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McIntosh (U.S. 2003/0171119) in view of Serbetcioglu et al. (U.S. Patent 5,719,918, "Serbetcioglu") and Clingerman (U.S. 7,336,941); and
- Claims 2 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McIntosh in view of Serbetcioglu, Clingerman, and further in view of Lam et al. (U.S. patent 6,782,276);

To the extent these grounds of rejection might again be applied to claims presently pending in this application, they are respectfully traversed.

The pending claims are directed to methods and systems for routing messages (e.g., short message service (SMS) messages) using the SS7 protocol. In the claims, an intermediary receives a request to route a message. Conventionally, such routing requests are received by a telecommunication carrier's infrastructure including a home location register (HLR) and associated mobile switching center (MSC). In the claimed invention, on the other hand, the routing request is received by an intermediary that "appears" like the conventional infrastructure, but where, in fact, no such infrastructure exists. As a subset of the steps that the intermediary must perform to appear as, e.g., an MSC to the third party from which the request was received, the intermediary's response to the routing request (e.g., an SMR_ROUTING_INFO_RESPONSE message) must include an International Mobile Subscriber Identity (IMSI) value (see, e.g., paragraph [0032] of the present specification).

In accordance with the express limitations of the independent claims, and in connection with providing an IMSI value in the intermediary's response, an "artificial" IMSI value is

dynamically created and is based, at least in part, on the carrier to which the message is to be routed. For example, as explained in paragraphs [0032] and [0037], the dynamically created artificial IMSI value is generated using the mobile country code (MCC) and mobile network code (MNC) of the destination carrier, along with additional data including an internal receiver ID and an internal index, both of which are assigned by the intermediary.

It is important to note that in the claimed invention the artificial IMSI is used in an actual response message that is sent by the intermediary. Claim 1, for example, requires, among other things,

returning a routing response from the intermediary to the third party for routing the message from the first mobile station to the second mobile station, the routing response including the artificial IMSI value, such that the intermediary is considered, from the point of view of the third party, a mobile switching center.

At least one advantage of this scheme is explained in paragraph [0039] of the specification. Specifically, the claimed artificial IMSI creates a virtual subscriber, resulting in the created IMSI value being “allowable” and “routable” in terms of compliance with a SRIForSM message and a follow-on FSM message (i.e., the relevant messages transmitted over SS7).

Clingerman has been cited as disclosing the dynamic selection of a virtual international mobile subscriber identification (IMSI) value. While Applicant acknowledges that Clingerman does disclose generating a virtual IMSI (at, e.g., col. 7, lines 19-21 of Clingerman), that virtual IMSI or “V-IMSI” is only used internally within an operator’s network. As explained in Clingerman, “[a]lthough the V-IMSI is of the same format as the IMSI, it is used internally in the operator’s network for identifying accounting records for WLAN users who do not have GPRS subscription and IMSI assignment.” (Clingerman at col. 7, lines 39-43.) In other words, Clingerman clearly does not contemplate using the generated V-IMSI outside of an operator’s network.

The way in which the V-IMSI in Clingerman is used is, accordingly, totally different from the way in which the virtual IMSI of the claimed invention is used. As emphasized above,

the claims specifically require that the virtual IMSI be employed as part of a "routing response from the intermediary to the third party" for routing the message from the first mobile station to the second mobile station." Such a routing response is necessarily outside of an operator's network. Thus, it is respectfully submitted that even if Clingerman were combined with McIntosh and Serbetciouglu, the claimed invention would not result since Clingerman's V-IMSI would only reasonably be used to modify the combination of McIntosh and Serbetciouglu to include enhanced internal accounting capabilities (e.g., "for identifying accounting records"), which is very different from employing an artificial IMSI in connection with external routing message exchanges.

Clingerman was also cited against pending claims 13-15, which recite the specific composition of the artificial IMSI according to the claimed invention. Specifically, each of claims 13-15 recites that the artificial IMSI value comprises:

- (1) a mobile country code (MCC),
- (2) a mobile network code (MNC),
- (3) an internal receiver ID associated with an intermediary component that processed an SRI for SM message, and
- (4) an index number assigned by the intermediary.

While Clingerman does disclose that the V-IMSI includes the MCC and MNC, the MSIN portion (i.e., the non- MCC/MNC portion) of the V-IMSI is not the same as elements (3) and (4). Specifically, Clingerman explains that "the first 3 digits of the MSIN may be set to zero and the remaining digits used to identify individual WLAN users." (Clingerman at col. 7, lines 47-49.) However, there is no disclosure in Clingerman of, for example, using an "internal receiver ID that processed an SRI for SM message" or an "index number," as required by claims 13-15. This is not surprising since Clingerman does not employ the disclosed V-IMSI in connection with outside communication, but rather uses that value only for internal accounting purposes.

Thus, Applicant respectfully submits that Clingerman neither discloses nor suggests all of the elements of claims 13-15. As such, any combination of Clingerman with the other prior art of record would not result in the claimed invention as set forth in claims 13-15.

In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicant's undersigned representative at the number listed below.

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